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Book Review: Managing Northern Forest Birds

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MANAGING NORTHERN FOREST BIRDS

Birds and Forests: A Management and Conservation Guide. Janet C. Green. 1995. Minnesota Department of Natural Resources, St. Paul, MN. 182 pages. $25.00 (paper).

Management of public forests is challenging today for several reasons, chief among them new knowledge of species-habitat relationships and population dynamics, the roles of disturbance regimes, and the effects of scale on land management planning. Also, environmental activism by groups whose members are sometimes unfamiliar with natural processes frequently results in legal challenges to agency regulations.

Janet Green's clearly written book goes a long way toward clarifying the ecological issues involved as they apply to the forested regions of Minnesota. *Birds and Forests* is written as an instructive guide for non-specialists who want to know about the issues involved in ecosystem-based management of forests and wildlife in Minnesota. Green eschews 'wildlife habitat,' which is vague and begs the question, which wildlife? Instead, the focus is on birds because of their diversity, habitat specificity, relative ease of study, and popularity.

The book is composed of six chapters and six appendices. The first three chapters outline the purpose and scope of the book, describe the distribution and abundance of Minnesota's forest birds, and discuss species-habitat relationships at stand, microhabitat, and landscape levels. The last three chapters comprise the heart of the book as regards forest management and planning: using species-habitat information in management, landscape-level planning, and stand-level recommendations. The chapter order makes sense. It's not strictly hierarchical, i.e., microhabitat, stand, landscape; nor are the sections within chapters necessarily strictly hierarchical. Forests are managed at the stand level, but modern management includes the provision and distribution of microhabitat components within stands, as well as planning the future forest condition into which individual stand prescriptions fit, rather than just allowing cumulative results of many stand treatments to determine the future condition.

The six appendices include the distribution and abundance of breeding birds by Minnesota ecoregions; selected life history traits of included birds; relative abundances of birds across 12 habitat types in the Chequamegon, Chippewa, and Superior National Forests; species of management concern with estimates of vulnerability and short- and long-term Breeding Bird Survey trends; scientific names; and a compilation of local and regional bird studies.

This will be a useful publication; it should lower the volume of debate about the management of public forests in Minnesota. Many a truth is imbedded in the text, and fundamental points, often selectively used or ignored to suit advocates' needs, are included with just enough literature citations to back them up. For example, some birds have been labeled "forest interior" species because they disappear from small woodlots and from the peripheries of larger forest patches as forests are fragmented by settlement and especially agriculture. But the set of species so labeled is very dependent on landscape context. The term is especially confusing in areas of extensive forest; there, many otherwise "forest interior" species do occur at stand edges or occupy territories that include forest

edge (e.g., the interface between an old and young stands) as a boundary. Green also takes the time to distinguish between Neotropical migrants and "forest interior" species, terms unfortunately used synonymously of late, even by professionals.

The author also documents the sources, scale, and periodicity of pre-settlement disturbance, essentially fire in Minnesota, to sufficiently make the case for intended readers that the landscape is, always has been, dynamic. This message needs repeated airing as "environmentalists" continue to call for more extensive old growth in the belief that this was the original forest condition throughout eastern North America. The author points out that northern conifer forests do not contain any birds that are old-growth forest obligates, and contrasts this situation with the Pacific Northwest in terms of disturbance intervals.

This work will receive wide readership in the Lake States and elsewhere in the Northeast. One could nitpick: misuse of "stability" for "sustainability" and some of the discussion on patch size seems to imply that there is some baseline landscape configuration to be mimicked by management, but these few items are insignificant compared to the benefits to be gained from citizens' enhanced understanding of Minnesota (and Lake States) forest dynamics and bird responses. The book is illustrated with many high-quality photographs of birds and forests and excellent illustrations, figures, and maps. The legends are for the most part in sentence form and clearly explain the points being illustrated. The quality throughout is first-rate, sure to appeal to citizens concerned about the management of Minnesota's forests.--*Richard M. DeGraaf, U.S. Forest Service, Northeastern Forest Experiment Station, University of Massachusetts, Amherst, MA 01003.*